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ABSTRACT OF THE DISCLOSURE

A p-type impurity layer is formed in an n-type semiconductor substrate. Since the p-type impurity layer has a low impurity concentration and a
5 sufficiently shallow depth of 1.0 μm or less, the carrier injection coefficient can be reduced. In the p-type impurity layer, a p-type contact layer of a high impurity concentration is formed for reducing a contact resistance. Since the p-type contact layer has a
10 sufficiently shallow depth of 0.2 μm or less, it does not influence the carrier injection coefficient. Further, a silicide layer is formed between the p-type contact layer and an electrode such that the contact-layer-side end of the silicide layer corresponds to
15 that portion of the p-type contact layer, at which the concentration profile of the contact layer assumes a peak value. The silicide layer further reduces the contact resistance.